

ON THE TYPE LOCALITY OF *ORCONECTES VIRGINIENSIS* HOBBS (DECAPODA: CAMBARIDAE) — Hobbs (1951) described the stream-dwelling crayfish *Orconectes virginienensis* from specimens collected by other workers in Dinwiddie, Brunswick, and Greensville counties, Virginia. Using information given to him by ichthyologist E.C. Raney, Hobbs (1951:124-125) gave the type locality of the species as "Rowanty Creek, a tributary of the Nottoway River, 3.3 miles south of Reams Station on U. S. Hy. 301., Dinwiddie County, Virginia." He later repeated essentially the same description (Hobbs, 1989:38), changing it only by adding the phrase "5.3 km" as an equivalent of "3.3 miles." The range of *O. virginienensis* was characterized by Hobbs (1989:38) as the "Chowan drainage system in North Carolina and Virginia," and the species is also known to occur in the lower Roanoke River system in North Carolina (Cooper & Cooper, 1977; Cooper & Braswell, 1995:106). All published records for the species in Virginia are for the Chowan drainage, which includes the Nottoway River and Meherrin River systems, draining all or part of 14 counties in the southern Piedmont and Coastal Plain. As part of my studies of the crayfish fauna of Virginia, I planned in early 1997 to visit the type locality of *O. virginienensis* in order to collect topotypes. But after searching various maps, other printed references, and communicating with several individuals, I became convinced that the type locality of *O. virginienensis* as described by Hobbs does not exist and that a revision of its description of this species is in order.

At no point does US 301 pass through Dinwiddie County, Virginia, nor has it at any time since its construction, though it does come within a few hundred meters of the county's border (US Department of Agriculture, 1944; US Geological Survey 1967, 1969; Charles Gill, pers. comm.). Thus, if the holotype (USNM 91659) of *Orconectes virginienensis* was

collected in Dinwiddie County, it could not have been taken at any site along US 301. Also, while US 301 does cross Rowanty Creek, it does so in Sussex County a short distance south of the Prince George County border. Reams Station, mentioned in the description of the type locality, is today identified on most maps simply as Reams and is located in Dinwiddie County. It was established on a railroad line, thus meriting the descriptor "Station," and was the site of the Battle of Reams Station (25 August 1864) during the U.S. Civil War. However, US 301 does not pass through Reams and apparently never has. Reams is about 12.2 km (7.6 miles), north of the US 301 crossing of Rowanty Creek, and about 4.3 km west of US 301 (by air) on Cty Rte 606. Another Dinwiddie County community, Carson, is located on US 301 about 5 road km north of the Rowanty Creek bridge, but is not mentioned in the description of the type locality of *O. virginienensis*.

Two reasonable possibilities suggested themselves. One was that the type locality might actually be 3.3 miles south of Reams and in Dinwiddie County, but not on US 301. No stream crossing is found at this point, though a nearby possibility might be the crossing of Cty Rte 703 (old State Route 141) over Rowanty Creek. But this site is over 6 km south-southwest of Reams, further if measured along the secondary roads between the two. If this were the actual collection site, we would have to assume that the distance to it was measured incorrectly, that "south" in the type locality description is a rough approximation, and that the actual collection site was not on US 301. The second possibility is that the type locality might be 3.3 miles south of Carson rather than Reams, which would correspond to the site where US 301 crosses Rowanty Creek. This would involve the mistaken recording of Reams Station rather than Carson in the locality data, as well as a mistake in recording the county where the collection was made. While possibilities other than these two might be forwarded, all involve assuming even greater errors in identification of stream name, compass direction, distance, town names, or more than one of these, and no evidence exists that any such greater errors occurred.

In the belief that additional clues might be provided by the description of the stream given by Raney to Hobbs and recorded by the latter in the species description (Hobbs, 1951:125), I visited the two possible sites identified above on 5 June 1997. Unfortunately, I could not distinguish between the two based on the descriptions given by Hobbs. Rowanty Creek has stained water, a similar width, and flows through a swampy area at both of these sites. The presence of Interstate 95 adjacent to the US 301 site in Sussex County caused additional uncertainty. The

interstate has been constructed alongside US 301 since the collection by Raney and crosses Rowanty Creek a few meters east of the US 301 crossing. It is unclear whether habitat conditions at this site were altered by construction, but it is certainly possible that they were.

A solution to this puzzle was provided when I reviewed the collection data recorded by Raney and his associates and preserved with the fish they collected at the same site. Hobbs specified that the holotype for *O. virginiensis* was collected along with fish taken by Raney and three associates in Rowanty Creek on 27 March 1949 (Hobbs 1951:125). Most of these fish are now part of the Cornell University Ichthyology Collection; individuals representing at least 16 species were taken. According to data kept with these specimens, Raney and his associates took them at the US 301 crossing of Rowanty Creek. The locality data on the Cornell collections read as follows: "USA, Virginia, Sussex" and "Rowanty Cr., trib. of Nottoway R., 3.3 mi. S of Reams Station on Hwy. 301." Thus it appears that the description of the site as 3.3 miles south of Reams originated with Raney, though he was aware that the site where the collection was made was in Sussex County. Raney's field number for the Rowanty Creek collection was ECR 1504B; another collection with the field number ECR 1504 and now stored at Cornell was made in the Monocacy River, Maryland, in July 1948. Raney was not the collector of the Maryland specimens, but is listed as providing their identifications. It is uncertain whether confusion resulting from this near-duplication of field numbers was a cause of the confusion of geography evidenced in the labeling of collection ECR 1504B, but they do not appear to be related.

It remains unclear how "Dinwiddie County" was substituted for "Sussex County" in the *O. virginiensis* type locality description. Hobbs may have realized that a point 3.3 miles south of Reams would be in Dinwiddie County and made the change when he prepared the description of *O. virginiensis*, not noticing that this point would be on neither Rowanty Creek nor US 301. Alternately, he may have been simply repeating information given to him by Raney, who could have changed the data at some time after making the collection. In any case, since the type specimens for *O. virginiensis* were collected with the fish taken by Raney, the location of that collection must be recognized as the type locality of this crayfish, and this location has been given incorrectly in the literature until now. The correct type locality of *Orconectes virginiensis* is as follows: Rowanty Creek, a tributary of the Nottoway River, Chowan River drainage, at the crossing of U.S. Highway 301, Sussex County, Virginia, 4.8 (air) km south of Carson.

Acknowledgments

Data on Raney's fish collections were made available by the staff of the Cornell Ichthyological Collection via MUSE software in July 1997. J. Clark confirmed data associated with *Orconectes virginiensis* specimens in the United States National Museum collection. Charles Gill of the Virginia Department of Transportation provided information on the routing of US 301 in Prince George and Sussex counties. Tom Jones commented on the manuscript.

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C. Michael Stinson
Department of Natural Sciences
Longwood College
Farmville, Virginia 23909